

NAME: _____

DATE: _____

PERIOD: _____

Show your work

Corrections / Comments

$$1. \quad 4x - 17 = 31$$

$$\quad \quad +17 \quad +17$$

$$4x = 48$$

$$\boxed{x = 12}$$

$$2. \quad 7 = 3 + \frac{x}{6}$$

$$\quad -3 \quad -3$$

$$4 = \frac{x}{6} \quad \boxed{x = 24}$$

$$3. \quad 9n + 18 = 81$$

$$\quad \quad -18 \quad -18$$

$$9n = 72$$

$$\boxed{n = 8}$$

$$4. \quad 25 - 13f = -14$$

$$\quad \quad -25 \quad -25$$

$$-13f = -39$$

$$\boxed{f = 3}$$

$$5. \quad 0 = 5(k + 9)$$

$$0 = 5k + 45$$

$$\boxed{k = -9}$$

$$6.$$

$$9 - 3(n - 5) = 30$$

$$9 - 3n + 15 = 30$$

$$-3n + 24 = 30$$

$$-3n = 6$$

$$\boxed{n = -2}$$

$$7. \quad 4(4 - a) = 8$$

$$\cancel{16 = 4}$$

$$4 - a = 2$$

$$\boxed{a = 2}$$

$$8.$$

$$4p + 5 - 7p = -1$$

$$-3p = -6$$

$$\boxed{p = 2}$$

$$9.$$

$$-21 = 3 - 4n + n$$

$$-24 = -3n$$

$$\boxed{n = 8}$$

$$10.$$

$$154 = 6 + 4(5 + 8x)$$

$$154 = 6 + 20 + 32x$$

$$128 = 32x$$

$$\boxed{x = 4}$$

11.

$$-111 = 3(4v - 5)$$

$$-111 = 12v - 15$$

$$\quad \quad +15 \quad \quad +15$$

$$-96 = 12v$$

$$\boxed{v = -8}$$

12.

$$-7 - 4(3a + 8) = -87$$

$$-7 - 12a - 32 = -87$$

$$-12a - 39 = -87$$

$$\quad \quad +39 \quad \quad +39$$

$$-12a = -48$$

$$\boxed{a = 4}$$

13.

$$-153 = -75k + 552$$

$$-705 = -75k$$

$$\boxed{k = 9.4}$$

$$14. \quad (14 = \frac{2}{9}y - 15) \cdot 9$$

$$126 = 2y - 135$$

$$261 = 2y \quad \boxed{y = 130\frac{1}{2}}$$

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15 $\left(\frac{1}{3}y + 12 = \frac{9}{10}\right)$ 10

$$2y + 120 = 9$$

$$2y = -111$$

$$y = -55\frac{1}{2}$$

17 $4x - 7 = 21$

$$x = 7$$

16

$$-8.3 = 0.9x - 0.2$$

$$-83 = 9x - 2$$

$$-81 = 9x$$

$$x = -9$$

18

$$4x + 14 = 24$$

 $x = \text{cost pen}$

$$x = \$2.50$$

19

 $x = \text{cost sand}$

$$3x + 1.25 = 12.35$$

$$3x = 11.1$$

$$x = \$3.70$$

20

$$7x + 9 = 4x$$

$$3x = -9$$

$$x = -3$$

21

$$8m - 5 = 5m + 7$$

$$3m = 12$$

$$m = 4$$

22.

$$3(n - 5) = -2n$$

$$3n - 15 = -2n$$

$$-15 = -5n$$

$$n = 3$$

23. $x + 7x + 15x = 29x + 18$

$$23x = 29x + 18$$

$$-6x = 18$$

$$x = -3$$